

2 **Please amend the claims as follows:**

- 3 In Claim 16, line 3 after the word "vat" please add "through a liquid treatment zone".
- 4 In Claim 16, line 10 after the word "vat" please add "through a liquid treatment zone".
- 5 In Claim 30, line 12 after the word "vat" please add "through a liquid treatment zone".
- 6 In Claim 30, line 18 after the word "vat" please add "through a liquid treatment zone".

The claims as they now stand in the subject application are listed below:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Previously Amended) A trench apparatus for liquid treatment of fabric

comprising:

a) a longitudinal trench for holding a treatment liquid;

b) a pull rope, chain, or cable having a plurality of shackle rings or shackles attached thereto for securing one or more bags to the rope, chain, or cable, the pull rope, chain or cable being positioned for pulling one or more bags containing dyed fabric in a longitudinal direction down the length of the trench, the pull rope, chain or cable engaging a pulley, sheave, or sprocket; and

c) an untreated fabric platform adjacent one end of the trench and a treated fabric platform adjacent the other end of the trench; and

wherein the trench has a liquid treatment zone, and the bags are dimensioned when full to block liquid flow down the trench.

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

- 2 12. (Cancelled)
- 3 13. (Cancelled)
- 4 14. (Cancelled)
- 5 15. (Cancelled)
- 6 16. (Currently Amended) A process for treating fabric with a liquid comprising the
- 7 steps of
- 8 a) moving a bag containing said fabric down a first longitudinal vat
- 9 through a liquid treatment zone containing liquid at a level wherein longitudinal
- 10 movement of liquid in the vat is blocked by the bag, whereby longitudinal movement of
- 11 the bag causes liquid to flow through the bag in a direction counter to the movement of
- 12 the bag;
- 13 b) moving the bag from the vat across a drainage platform to allow excess
- 14 liquid to flow from the bag; and
- 15 c) moving said bag containing said fabric down a second longitudinal vat
- 16 through a liquid treatment zone containing liquid at a level wherein longitudinal
- 17 movement of the bag causes liquid to flow through the bag in a direction counter to the
- 18 movement of the bag.
- 19 17. (Original) A process for treating fabric with liquid according to Claim 16
- 20 wherein the dyed fabric is denim, and the liquid is a treatment liquid which is a member selected
- 21 from the group consisting of dye solvent, aqueous reducing solution and aqueous bleach.
- 22 18. (Original) A process of Claim 17 wherein treatment liquid is passed from the
- 23 second vat to the first vat in countercurrent movement to the movement of the bag.

2 19. (Original) A process of Claim 16 wherein a plurality of bags are moved down
3 the first and second vats in sequence.

4 20. (Original) A process of Claim 16 for removing dye from fabric carrying said
5 dye comprising the steps of:

6 a) moving a bag containing said fabric down a first longitudinal vat containing a
7 liquid solvent for said dye at a level wherein longitudinal movement of liquid in the vat is
8 blocked by the bag, whereby longitudinal movement of the bag causes liquid solvent to
9 flow through the bag in a direction counter to the movement of the bag;

10 b) moving the bag from the vat across a drainage platform to allow excess liquid
11 solvent to flow from the bag; and

12 c) moving said bag containing said fabric down a second longitudinal vat containing
13 liquid solvent for the dye at a level wherein longitudinal movement of the bag causes
14 liquid solvent to flow through the bag in a direction counter to the movement of the bag.

15 21. (Original) A process of Claim 16 for removing dye from fabric carrying said
16 dye, wherein the dyed fabric is denim, and the liquid is a solvent for indigo.

17 22. (Original) A process of Claim 16 wherein solvent for the dye is passed from
18 the second vat to the first vat in countercurrent movement to the movement of the bag.

19 23. (Original) A process of Claim 16 wherein a plurality of bags are moved down
20 the first and second vats in sequence.

21 24. (Original) A process of Claim 16 for removing dye from fabric carrying said
22 dye comprising the steps of:

23 (a) moving a bag containing said fabric down a first longitudinal vat
24 containing an aqueous solution containing a reducing and solubilizing agent for said dye

2 at a level wherein longitudinal movement of liquid in the vat is blocked by the bag,
3 whereby longitudinal movement of the bag causes said aqueous solution to flow through
4 the bag in a direction counter to the movement of the bag;

5 b) moving the bag from the vat across a drainage platform to allow excess
6 aqueous solution to flow from the bag; and

7 c) moving said bag containing said fabric down subsequent longitudinal vats
8 containing aqueous solution for the dye at a level or levels wherein longitudinal
9 movement of the bag causes said aqueous solution to flow through the bag in a direction
10 counter to the movement of the bag.

11 25. (Original) A process of Claim 20 wherein a pump is used to recirculate
12 process liquor through a portion of the trench and through any bags of fabric contained within
13 said portion of trench.

14 26. (Original) A process of Claim 20 for removing dye from fabric carrying said
15 dye wherein the dyed fabric is denim, and the aqueous solution contains a reducing and
16 solubilizing agent for indigo.

17 27. (Original) A process of Claim 20 wherein aqueous solution containing a
18 reducing and solubilizing agent for said dye is passed from the second vat to the first vat in
19 countercurrent movement to the movement of the bag.

20 28. (Original) A process of Claim 20 wherein a plurality of bags are moved down
21 the first and second vats in sequence.

22 29. (Original) A process of Claim 20 wherein the trench utilized for the reduction
23 and extraction of dye is covered with an airtight cover which retains an inert gas or oxygen
24 depleted gas environment above the trench and the bags.

2 30. (Currently Amended) A process for bleaching indigo dyed fabric in a trench
3 apparatus, the trench apparatus having a longitudinal trench with a liquid treatment zone and
4 holding hydrogen peroxide for reducing the indigo dye, the apparatus including a pull rope,
5 chain, or cable having a plurality of shackle rings or shackles attached thereto for securing one or
6 more bags to the rope, chain, or cable, the pull rope, chain or cable being positioned for pulling
7 one or more bags containing fabric in a longitudinal direction down the length of the trench, the
8 pull rope, chain, or cable engaging a pulley, sheave, or sprocket, the bags being dimensioned
9 when full to block liquid flow down the trench, the apparatus further including an untreated
10 fabric platform adjacent one end of the trench and treated fabric platform adjacent the other end
11 of the trench, the process comprising the steps of:

12 a) moving a bag containing said indigo dyed fabric down a first longitudinal
13 vat through a liquid treatment zone containing an aqueous solution containing a bleaching
14 agent for said dye at a level wherein longitudinal movement of liquid in the vat is
15 blocked by the bag, whereby longitudinal movement of the bag causes said aqueous
16 solution to flow through the bag in a direction counter to the movement of the bag;

17 b) moving the bag from the vat across a drainage platform to allow excess
18 aqueous solution to flow from the bag; and

19 c) moving said bag containing said fabric down a second longitudinal vat
20 through a liquid treatment zone containing aqueous solution for the dye at a level wherein
21 longitudinal movement of the bag causes said aqueous solution to flow through the bag in
22 a direction counter to the movement of the bag.

23 31. (Original) A process of Claim 30 for bleaching fabric carrying said dye
24 wherein the dyed fabric is denim, and the aqueous solution contains a bleaching agent for indigo.

2 32. (Original) A process of Claim 30 wherein aqueous solution containing a
3 bleaching agent for said dye is passed from the second vat to the first vat in countercurrent
4 movement to the movement of the bag.

5 33. (Original) A process of Claim 30 wherein a plurality of bags are moved down
6 the first and second vats in sequence.

7 34. (Original) A process of Claim 30 wherein the bleaching agent is hydrogen
8 peroxide bleach containing a bleaching catalyst.

9 35. (Original) A process of Claim 34 wherein the bleaching catalyst is water
10 soluble quaternary amine catalyst.

11 36. (Original) A process of Claim 16 wherein dyes, chemicals and reagents that
12 may assist in enabling optimization of the fabrics of this invention for utilization in subsequent
13 processes or end use applications can be added.

14 37. (Original) A process of Claim 36 wherein the treatments may contain
15 humectants, antibacterial agents, lubricants, dyes or tints, optical brighteners, hand modifiers,
16 antistatic agents and the like.